Public Hearing, North Dakota Department of Environmental Quality, 918 East Divide Avenue, Bismarck ND 58501-1847 or by calling 866-836-7636

**Oral Comments Received at Public Hearing:** None
**Written Comments Received at Public Hearing:** None

**Oral Comments Received During Public Notice Period:**

---

Miguel A. Martinez, Environment – Meridian Energy Group. By Phone on August 19, 2020.

"The proposed ammonia criteria in the full notice on the department's website could not be calculated as expressed."

**Written Comments Received During Public Notice Period:**

---

Randy D. Binegar, PE, Environmental Supervisor - Mandan Refinery Marathon Petroleum. By Email on September 11, 2020.

Karl, Per our discussion at Wednesday's ERAC board meeting, I am proposing a language change to 33.1-16-02.1-11. The current proposal includes the below language

4. Any spill or discharge of waste which causes or is likely to cause pollution of waters of the state must be reported immediately. The owner, operator, or person responsible for a spill or discharge must notify the department as soon as possible ~~(701-328-9210) or the North Dakota hazardous materials emergency assistance and spill reporting number~~ by contacting State Radio(1-800-472-2121, or online) and provide all relevant information about the spill. ~~Depending on the severity of the spill or accidental discharge, the department may require t~~The owner or operator is required to:

   a. Take immediate remedial measures;

   b. Determine the extent of pollution to waters of the state;

   c. Provide alternate water sources to water users impacted by the spill or accidental discharge; ~~or~~

   d. Provide on request any documents, reports or other information relevant to the spill or discharge; or

   e. Any other actions necessary to comply with this chapter

I propose that the following line not be deleted as proposed: Depending on the severity of the spill or accidental discharge, the department may require the owner or operator to:

The follow proposed language should then be deleted: The owner or operator is required to:

Due to the lack of a definition for "causing pollution of waters of the state", I believe my suggested change allows the DEQ the flexibility to deal with issues in a constructive manner.

Thank you for your consideration of this proposal.

Feel free to contact me with any questions.

**Randy Binegar, PE**
Environmental Supervisor
**Mandan Refinery**
**Marathon Petroleum**
Office: 701-667-2492
Mobile: 701-595-4947
**rdbinegar@marathonpetroleum.com**

---

Dr. Madeline Z. Luke, MD. By email on October 23, 2020.

**COMMENT ON FULL NOTICE OF INTENT TO**
**AMEND AND ADOPT ADMINISTRATIVE RULES**
**RELATING TO STANDARDS OF QUALITY FOR WATERS OF THE STATE**

"Updated the chronic aquatic life Mercury criteria from 0.012 µg/l to 0.88 µg/l total recoverable to reflects the CWA Section 304(a) Criteria Recommendation for the Protection of Aquatic Life. "

I have concerns about this proposed action. The 77 fold increase in allowable chronic aquatic level caught my attention and begged the question why this should be changed. Mercury 's role in the environment and human health is a complicated but significant issue. In reviewing the USGS Circular on "Mercury in our Nation's Stream", I came away with a list of knowns and unknowns

Things we know:

1. There are significant neurotoxicity and reproductive effects by methylmercury on humans, birds and fish

2. Methylation of elemental mercury increases with sulfate-dependent bacteria, frequent flooding with inundation.
3. Soil bound mercury gets into soil water with erosion
4. Coal burning plants are a major source of elemental mercury. In 2005, only 10% is naturally occurring while the remainder was anthropromorphic with about 55% coming from coal burning plants( p24)
5. The background (pre-industrial) levels of mercury in ND soils are low (p45)

   Also,

6. An advisory for limiting ND fish intake by all, but especially pregnant women and young children, with respect to mercury was released in 2003 by ND state agencies

Issues that are not clear:

1. The "safe" level of mercury in fish and fish eating animal tissue is unknown, having been documented at under .3 ppm, the USEPA tissue mercury criterion for protection of human health. ( p 12)
2. Why there has not been a repeat evaluation of mercury levels in fish for human consumption in about 20 years. Why there is so little data on present mercury levels in ND water?

3. Why there should be such a significant change in allowable mercury level in our waterways now.
4. What, if any, are the plans for future monitoring in fish or human levels of mercury or even water which will occur after the proposed institution of this measure.

The mission of the ND DEQ is to protect is to protect the environment for human and wildlife health; its decisions should be based on the best data available and an inclination to be conservative. Over the last 20 years, we have had numerous floods causing recurrent bank inundation and soil erosion throughout the state. Locally in Barnes County, the sulfate levels in the Sheyenne River have exceeded the historical levels prior to the Devils Lake outlets. We continue to have operating coal plants, a major source of elemental mercury and should President Trump's rollback on mercury emissions stand, one can anticipate that more mercury again will enter the biosphere. All these potentially affect the amount of mercury entering the water and also its methylation. We have not much current data on what is in the ND water, fish or humans now. Since we know mercury is dangerous to most living things, there must be an excellent reason to relax standards so significantly without demonstrating that this action is safe. Without baseline and ongoing monitoring data, this action appears ill advised and somewhat inexplicable. EPA does not limit the state from having a more stringent standard than Federal standards. ND should have the best possible water quality, not just the water that means a numerical standard that might or might not change. Why change the standard now and by so much?

Madeline Luke

Valley City ND

October 23, 2020

References:

USGS Circular 1395, "Mercury in the Nation's Streams" 2014

Fish Advisory 2003

Andrew Todd, Chief Water Quality Section, U.S. Environmental Protection Agency, Region 8.
1595 Wynkoop Street, Denver, Co 80202-1129

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

October 23, 2020

**SENT VIA EMAIL**
**DIGITAL READ RECEIPT REQUESTED**

Mr. Peter Wax
Division of Water Quality
North Dakota Department of Environmental Quality
918 East Divide Avenue, 4th Floor
P.O. Box 1947
Bismarck, North Dakota 58501-1947

Re: EPA Comments on Triennial Review of North Dakota's Water Quality Standards

Dear Mr. Wax:

This letter provides comments of the U.S. Environmental Protection Agency for the public comment period on the triennial review of North Dakota's water quality standards (WQS). We offer the following recommendations for your consideration as you complete the triennial review.

In the last triennial review in 2018, the North Dakota Department of Environmental Quality (DEQ) focused on new and revised criteria including the adoption of 87 human health criteria for the protection of human health, the adoption of new narrative nutrient criteria, and the adoption of updated aquatic life criteria for cadmium. During the current triennial review, the DEQ is proposing to update aquatic life criteria for ammonia to reflect EPA's 304(a) recommendations and is proposing to adopt selenium fish flesh criteria. The EPA encourages North Dakota to continue to make progress towards improving its WQS and offer the following recommendations for the state's consideration.

New or Updated Section 304(a) Criteria Recommendations

The EPA WQS regulation requires states to provide an explanation if not adopting new or revised criteria for parameters for which the EPA has published new or updated Clean Water Act (CWA) section 304(a) criteria recommendations (40 CFR § 131.20(a)). Since North Dakota's last triennial review, the EPA has published recommendations for aluminum aquatic life criteria[1] and for human health recreational ambient water quality criteria/swimming advisories for two cyanotoxins:

[1] See www.epa.gov/sites/production/files/2018-12/documents/aluminum-final-national-recommended-awqc.pdf

microcystins and cylindrospermopsin.[2] [3] Please provide an explanation indicating why these new or updated CWA section 304(a) criteria are not being proposed for adoption at this time.

Selenium criteria

DEQ proposes to adopt EPA's recommended criterion for selenium in fish flesh without EPA's accompanying recommended water column values. The proposed approach of retaining the state's existing selenium water column values and linking those to EPA's recommended fish tissue values would not be defensible and protective, unless the state can provide data and information to explain why it is appropriate to link the existing water column values with our national recommended fish tissue values. EPA understands that state-specific data may indicate that water column values different from EPA's national recommendations may be appropriate for the state, and therefore encourages the state to continue to work on revisions to its selenium criterion and is willing to assist and help advise DEQ on conducting future studies and sampling design.

Downstream Use Protection

We recommend that North Dakota include language in the water quality standards to address downstream use protection. Pursuant to sections 303 and 101(a) of the Clean Water Act, 40 CFR § 131.10(b) requires that "In designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenaance of the water quality standards of downstream waters." This provision requires states and authorized tribes to consider and ensure the attainment and maintenance of downstream[4] WQS during the establishment of designated uses and water quality criteria in upstream[5] waters. In 2014, the EPA developed Frequently Asked Questions and a Decision Tool that includes customizable templates for narrative downstream protection criteria to assist states/tribes with this effort.[6] These templates may be used to develop a narrative provision that applies to all waters in the state as well as a variety of tailored narratives that can be developed to address specific water bodies, pollutants, and/or water body types.

Domestic Drinking Water Designation

In Table 1, under the heading "Substance or Characteristic," the designation for "b" of "domestic drinking water" is somewhat unclear. We recommend that the reference be clarified to explain

---

[2] See www.epa.gov/sites/production/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf

[3] Please note that the EPA also published national drinking water health advisories for these cyanotoxins. Fact sheets and FAQs are available. See www.epa.gov/ground-water-and-drinking-water/harmful-algal-blooms-and-cyanotoxins-drinking-water-factsheets-and

[4] The EPA interprets the term "downstream" to include both intra- and interstate waters, as well as waters that form a boundary between adjacent jurisdictions. See EPA "Protection of Downstream Waters in Water Quality Standards: Frequently Asked Questions" (June 2014) page 1, FN 1 available at: www.epa.gov/sites/production/files/2018-10/documents/protection-downstream-wqs-faqs.pdf

[5] The term "upstream" includes "instream" when referring to the water body(ies) for which states/tribes are developing designated uses/water quality criteria that will ensure the attainment and maintenance of downstream WQS. See id. at page 1, FN 2.

[6] See www.epa.gov/wqs-tech/decision-tool-downstream-water-quality-protection



ED_013266A_00000041-00005

what it is referring to as related to the limits listed in Table 1. Such clarification would be helpful to understand implementation for these limits in permits.

Table 2 – Water Quality Criteria

We recommend clarifying footnote 1 at the bottom of p. 16. As written, it is confusing. It reads: "Except for the aquatic life values for metals, the values given in this appendix refer to the total (dissolved plus suspended) amount of each substance. For the aquatic life values for metals, the values refer to the total recoverable method for ambient metals analyses." EPA recommends that aquatic life criteria be implemented with the dissolved fraction with a few exceptions (e.g., aluminum).

- If it is North Dakota's intent to implement most aquatic life metals criteria as a dissolved fraction, footnote 1 could read "Except for the aquatic life values for metals, the values given in this appendix refer to the total (dissolved plus suspended) amount of each substance. For the aquatic life values for metals, the values refer to the ~~total recoverable method for ambient metals analyses~~ dissolved fraction unless otherwise noted."
- If it is North Dakota's intent to implement most aquatic life metals criteria as a total fraction, footnote 1 could read "~~Except for the aquatic life values for metals, t~~The values given in this appendix refer to the total (dissolved plus suspended) amount of each substance unless otherwise noted. ~~For the aquatic life values for metals, the values refer to the total recoverable method for ambient metals analyses.~~"

Additionally, the footnote's parenthetical definition of total metals may need clarification.

Further, we note that North Dakota's proposed revisions to the hardness-based aquatic life metals criteria do not include conversion factors found in Appendices A and B of EPA's nationally recommended aquatic life criteria.[7] These conversion factors convert the total fraction of the metals to the dissolved fraction of the metals, consistent with EPA recommendation. If it is North Dakota's intent to implement its aquatic life metals criteria as a dissolved fraction, we recommend adding the metal-specific conversion factor for each metal.

We thank the Division of Water Quality for its efforts to maintain and improve water quality in North Dakota. Please note that our positions are preliminary in nature and should not be interpreted as final EPA decisions under CWA 303(c). If you have any questions, please contact Holly Wirick or my staff at (303) 312-6238 or wirick.holiday@epa.gov.

Sincerely,

ANDREW TODD Digitally signed by ANDREW TODD Date: 2020.10.23 15:29:53 -06'00'

Dr. Andrew Todd, Chief
Water Quality Section

[7] See https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table